### Navigation Improvement Study Reconnaissance Report

# Northeast Harbor Mount Desert, Maine

#### SYLLABUS

This Reconnaissance Report for Northeast Harbor, Mount Desert, Maine was prepared under the authority of Section 107 of the 1960 River and Harbor Act, as amended, for Small Navigation Projects.

This report examined the feasibility of modifying the existing Federal project to increase the harbor's open mooring capacity. The evaluated plan would add 13.4 acres of anchorage to the northern and eastern areas of the harbor. This would be accomplished by dredging the selected areas to a depth of 6 feet below mean low water (MLW). The cost of completing this work is estimated at \$682,000, representing an annual cost of \$68,200. Annual benefits were estimated at \$147,300 resulting in a benefit-cost ratio of 2.2. However, since the benefits from this work are entirely recreational in nature with no projected benefits to commercial fishing, the project is not recommended for further study.

This report consists of a Main Report summarizing the existing conditions, opportunities for improvement, the rationale for plan formulation, design and cost estimates, cost/benefit analysis and appended supporting documentation for Economic Analysis, Environmental Analysis and Pertinent Correspondence.

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1. AGENCY USE ONLY (Leave grank)

2. REPORT DATE

June 1988

3. REPORT TYPE AND DATES COVERED

Reconnaissance Report

5. FUNDING NUMBERS

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Reconnaissance Report, Proposed Improvement Dredging,

Northeast Harbor, Mount Desert, Maine

#### 6. AUTHOR(S)

U.S. Army Corps of Engineers New England Division

#### 7. PERFORMING ORGANIZATION NAME(S) AND AODRESS(ES)

U.S. Army Corps of Engineers, New England Division 424 Trapelo Road Waltham, MA 02254-9149

#### 9. SPONSORING MONITORING AGENCY NAME(S) AND ADDRESS(ES)

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8. PERFORMING ORGANIZATION REPORT NUMBER

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

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#### 124. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release Distribution is unlimited

12b. DISTRIBUTION CODE

#### 13. ABSTRACT (Maximum 200 words)

This report examined the feasibility of modifying the existing Federal project to increase the harbor's open mooring capacity. The evaluated plan would add 13.4 acres of anchorage to the northern and eastern areas of the harbor. This would be accomplished by dredging the selected areas to a depth of 6 feet below mean low water (MLW). The cost of completing this work is estimated at \$682,000, representing an annual cost of \$68,200. Annual benefits were estimated at \$147,300 resulting in a benefit to cost ratio of 2.2. However, since the benefits from this work are entirely recreational in nature with no projected benefits to commercial fishing, the project is not recommended for further study.

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14. SUBJECT TERMS			15. NUMBER OF PAGES  33
Northeast Harbor; o	lredging; mooring		16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	100 (000 ) 39)

Standard Form 298 (Rev. 2-89) Prescribes by ANSI 5td. 239-18 298-102

#### RECONNAISSANCE REPORT

## PROPOSED IMPROVEMENT DREDGING NORTHEAST HARBOR MOUNT DESERT, MAINE

PLAN FORMULATION

Prepared by: Christopher L. Hatfield Project Manager Civil Engineer

June 1988

DESIGN AND COST ESTIMATES

Prepared by: Pamela Rubinoff Civil Engineer

April 1988

#### NORTHEAST HARBOR

#### RECONNAISSANCE REPORT

#### EXISTING CONDITIONS

As can be seen in Figure 1, Northeast Harbor is located on the southern side of Mount Desert Island. The Cranberry Isles are directly south of the Harbor, while Somes Sound and Seal Harbor lie westward and eastward respectively (See Figure 2). The village of Northeast Harbor, a part of the town of Mount Desert in Hancock County, borders the project area to the west while Acadia National Park lies to the north.

The site is accessible by land via state routes 3 and 198. Sea access to the town landing is through the 10-foot Federal channel that was dredged from natural deep water in the outer reaches of the harbor as part of the project authorized in 1945.

Northeast Harbor, during the summer months, is predominantly a haven for recreational boaters. While during the the winter months, the harbor serves as an alternate port for approximately 47 fishing boats.

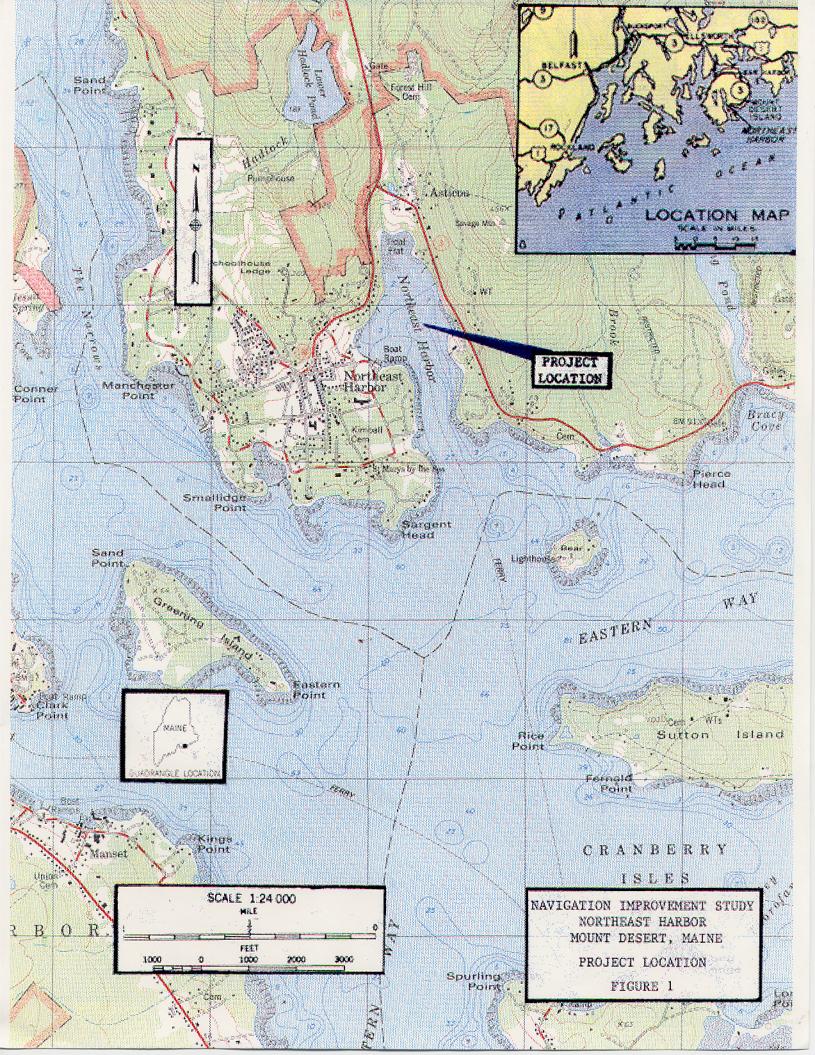
#### PRIOR STUDIES AND IMPROVEMENTS

Northeast Harbor was the subject of a Preliminary Examination, dated August 31, 1911, and published as HD#358, 62nd Congress, 2nd session. The report concluded that, despite the local need for expanded recreational anchorage, the harbor was not worthy of Federal improvement.

A second Preliminary Examination, dated April 15, 1938 was favorable to completion of a Survey Report, dated September 22, 1938. The report recommended dredging of a combined 10-foot channel and anchorage covering about 7 acres and 7-foot anchorage areas covering 18-acres. This project was authorized by the River and Harbor Act of March 2, 1945 and construction completed in June 1954.

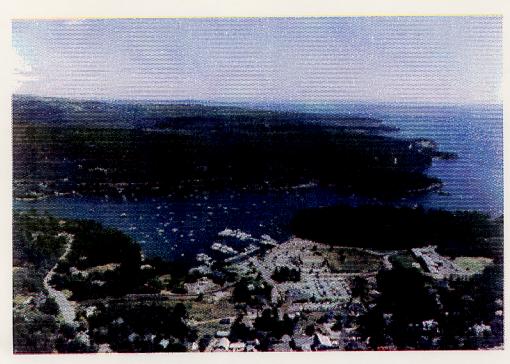
#### PROBLEMS AND OPPORTUNITIES

The Federal project, as completed in 1954, provided for approximately 25 acres of anchorage in addition to the 10.4 acres of naturally existing mooring space in Northeast Harbor. The present harbor is no longer able to accommodate the ever increasing amount of recreational traffic. During the summer months, approximately 400 recreational and 15 commercial boats use the harbor. This overcrowding condition has caused an increase in boat damage. At this time, there are 50 boats on a waiting list to acquire mooring space in the harbor. The town of Mount Desert is seeking to perform maintenance dredging on the existing channel anchorage areas. However, with an anticipated continuance of growth in the recreational fleet over the next decade, maintenance dredging will not alleviate the space problem.





View to Northwest - Northeast Harbor area with Somes Sound in the background



View to Southeast - Village of Northeast Harbor foreground Seal Harbor in background

AERIAL PHOTOGRAPHS

NORTHEAST HARBOR MOUNT DESERT, MAINE

FIGURE 2

The without project condition is assumed to be a continuation of the existing conditions.

#### PLAN FORMULATION RATIONALE

The current problem of overcrowding, subsequent damage to recreational craft, and continuing fleet expansion, could be reduced or eliminated by providing additional anchorage.

Proposed layouts of additional anchorage were discussed with the harbormaster. The existing channel and anchorage locations limit the areas for expansion to the north and east of the 7-foot anchorage limits. Mooring space to the north was limited so that the additional anchorage to be created would not encroach on nearby tidal flats that contain a healthy shellfish population. Space available in the areas to the South, near the mouth of the harbor, would not provide suitable protection from ocean storms and were, therefore, deemed unacceptable. The only other alternative for expansion was along the eastern edge of the harbor, near the area of Peabody's Flat. Only in these areas was sufficient space available for mooring expansion that would meet present and future anchorage demand.

#### DESIGN

In order to calcuate the extra anchorage needs, the existing anchorage space and present fleet size needed to be determined. The existing Federal project supplied 18 acres of 7-foot deep anchorage and 7 acres of 10-foot deep anchorage. Northeast Harbor currently holds 415 vessels. Of this number, 301 vessels use the 35.4 acres of open mooring space available, while the remaining boats use marina slips or private docks. Using an open mooring fleet size of 301, it was determined that:

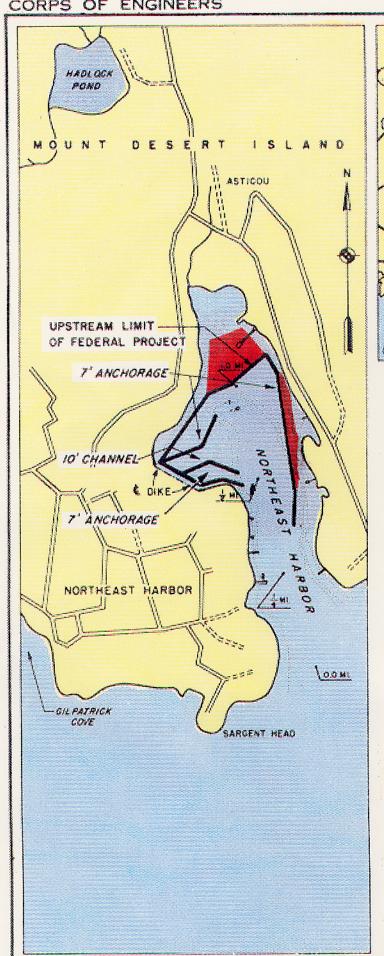
- 72 open moored boats require 10-foot deep anchorage.
- 164 open moored boats require 7-foot deep anchorage.
- 65 open moored boats require 6-foot deep anchorage.

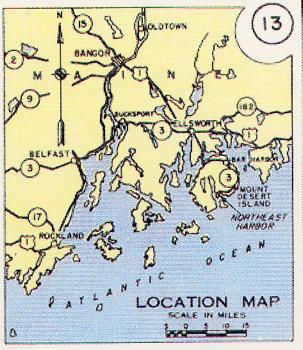
Using mooring swing radius calculations, and assuming it practical to require larger vessels to utilize a 2-point mooring layout, it was determined that:

- boats requiring 10 feet of depth need 4,650 square feet of anchorage.
- boats requiring 7 feet of depth need 7,350 square feet of anchorage.
- boats requiring 6 feet of depth need 5,100 square feet of anchorage.

Using these figures along with the fact that 50 additional boats were on a waiting list for mooring space, it was determined that the harbor needed 13.4 additional acres of 6-foot deep anchorage.

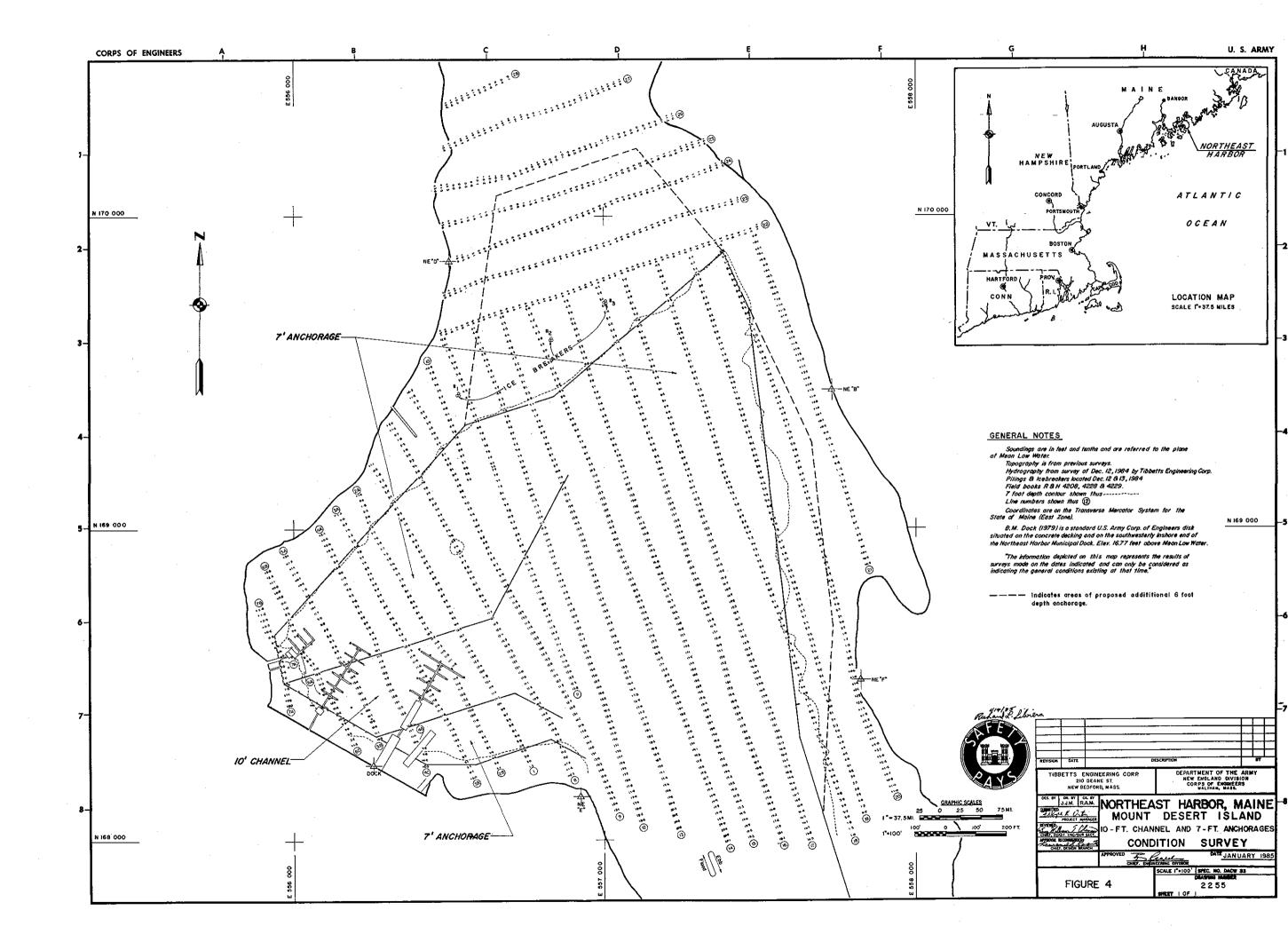
As stated previously, expansion was limited to the northern and eastern sections of the harbor. The northern expansion comprises 9.4 acres and the eastern expansion 4.0 acres of additional space (See Figure 3). The two areas would be dredged to a depth of 6 feet below mean low water (MLW) with a 1-foot overdepth. Quantity and cost estimates were based on the January 1985 survey sheet (See Figure 4) and April 1988 price levels.





Increase anchorage area by addition of -6 MLW area as shown

NAVIGATION IMPROVEMENT STUDY NORTHEAST HARBOR MOUNT DESERT, MAINE EVALUATED PLAN OF IMPROVEMENT FIGURE 3



The improvement dredging will utilize a 1:3 slope ratio. The cost estimate for this work is shown in Table 1 and the project's subsequent annual cost can be found in Table 2. The material dredged from this work was assumed to be removed to either the Frenchmans Bay or Placentia Island Disposal Sites both located within 10 miles of the project site.

#### MAINTENANCE COSTS

Maintenance of the anchorages to their authorized depths would be necessary to ensure the continued efficiency of the dredged areas. Continued maintenance of the existing aids to navigation would also be necessary.

Following initial dredging the anchorage would tend to shoal or fill in because of settlement of material from side slopes, deposition of material derived from upland erosion, and from current and tidal action.

Northeast Harbor is a substantially enveloped ledge bound inlet with only one inland stream feeding the area and a restricted opening to the sea. Adjacent shore areas are rocky granite ledge and no longshore sediment transport is known. Over the 34 years since the completion of the Federal Project in 1954, there has been no maintenance dredging done on the harbor. It would appear that shoaling is not a problem in the area nor would shoaling rates be effected substantially by this project. For purposes of economic analysis an annual rate of one percent of the improvement volume will be used. The annual cost for this maintenance is shown in Table 2.

#### BENEFIT COST ANALYSIS

Assuming the extra anchorage was added, benefits included would be of two categories effecting recreational vessels. The first of these would be the elimination of vessel damage resulting from harbor congestion. The second benefit would be the enhanced recreational experience to present and future boaters, brought about by harbor improvement. This would include 50 vessels presently on the Harbormaster's waiting list for anchorage space.

Benefits were based on a recreational fleet of 301 vessels. Due to the pure recreational use of the harbor during the summer season, there are no benefits to commercial fishing.

Annual benefits, as detailed in the attached Econmic Report, are summarized as follows:

#### ANNUAL BENEFITS

Elimination of Damage to Recreational vessels	\$ 27,000
Recreational Benefits	\$120,300

The benefit-cost analysis is shown below:

Annual Benefit	\$147,300
Annual Cost	\$ 68,200
Benefit-Cost Ratio	\$ 2.2
Net Benefit	\$ 79,100

#### CONCLUSIONS

The annual benefits of the considered harbor improvement dredging do outweigh the annual costs. There were no significant environmental impacts found and the project is engineeringly feasible. However, due to the fact that there are no commercial benefits involved, further Federal study is not warranted (ER 1165-2-140).

#### RECOMMENDATION

Further study of anchorage improvements for navigation in Northeast Harbor is not recommended.

### TABLE 1 NORTHEAST HARBOR, MAINE EVALUATED PLAN OF IMPROVEMENT

#### ESTIMATES OF FIRST COST

#### FIRST COSTS

Dredging Ordinary Material 54,000cy @ \$8.30/cy*	\$448,000
Contingency Subtotal Construction Cost	$\frac{112,000}{\$560,000}$
Engineering & Design Supervision & Administration TOTAL FIRST COST	$\begin{array}{r} 32,000 \\ \underline{78,000} \\ \$670,000 \end{array}$
Aids to Navigation (3 Buoys)	12,000
TOTAL PROJECT COST	\$682,000

#### \* Note:

Unit price includes: Mobilization & Demobilization, Contractor's Overhead, Bond Cost, and Profit. Estimated time of construction is 1.2 months. Costs were based on April 1988 Price Levels.

#### TABLE 2

#### NORTHEAST HARBOR, MAINE

#### EVALUATED PLAN OF IMPROVEMENT

#### ANNUAL COSTS

FIRST COST OF CONSTRUCTION	\$670,000
INTEREST DURING CONSTRUCTION (670,000 - 2 X 2.00719 = 672,000)	2,000
NAVIGATION AIDS	12,000
TOTAL INVESTMENT	\$684,000
DREDGING	
Interest and Amortization $$684,000 \times .08765 =$	\$60,000
Maintenance Dredging	6,700
Maintenance of 3 Navigation Aids	1,500
TOTAL	\$68,200

#### RECONNAISSANCE REPORT

NORTHEAST HARBOR MOUNT DESERT, MAINE

ECONOMIC ANALYSIS

Prepared by: Marianne N. Matheny Project Economist

March 1988

Economic and Resource Analysis Section Impact Analysis Branch U.S. Army Corps of Engineers New England Division

#### Northeast Harbor, Mt. Desert, ME Reconnaissance Report - Economic Analysis

#### Study Area

Northeast Harbor is located on Mt. Desert Island and is roughly 25 miles from the town of Ellsworth. It is near the mouth of the Somes Sound on its eastern bank. The population of the town of Mt. Desert, which includes Northeast Harbor, Seal Harbor and Somes Sound is 2063 (1980 Census). Like Bar Harbor, Northeast Harbor is essentially a summer community. However, the communities are different in that Bar Harbor supports a large transient tourist trade, while Northeast Harbor is inhabited by a smaller number of summer residents who return each year. The town has few shops, restuarants or motels and is characterized by private cottages, estates and yacht clubs.

The harbor itself is a well protected harbor with a mooring area roughly 200 yards wide at its lower end and shallow water moorings near the town dock. The town dock is a small facility for loading and unloading materials. There are several well equipped facilities for the yachting trade: Northeast Harbor Yacht Club, the Northeast Harbor Marina and Clifton Dock.

#### Existing Conditions

The summer harbor caters exclusively to recreational boating, and particulary to yachting. There are no commercial fishing boats present from June 15 through October 15. According to Harbormaster, William Boddy, there are 301 private recreational boats in Northeast Harbor during the summer months. These boats range from 13 feet to 150 feet in length. In addition to these boats, there are also 12 passenger tour and ferry boats (to Cranberry Islands). At this time there are 30 recreational boats on a waiting list requesting mooring space in the harbor.

During the period from October 15 to June 15, the recreational vessels leave and Northeast Harbor becomes an alternative commercial fishing harbor. Commercial fishermen from neighboring Bar Harbor and Southwest Harbor, transfer to Northeast harbor because it affords greater protection from fall and winter storms than their home ports. The largest group is from Bar Harbor which is a totally unprotected harbor. All fisherman from Bar Harbor who continue to fish through the winter, moor in Northeast Harbor. Last year there were 30 fishing vessels ranging in length from 30 to 60 ft. moored in Northeast Harbor for the winter.

The town of Mt. Desert is planning a number of improvements to the docking facilities. The town pier will be rebuilt, and all floats repaired this winter. Dredging will be done in the immediate area of the town dock and floats. The floats are currently constructed across part of the area designated as the federal channel. Because of this construction the Federal government no longer has the obligation to perform maintenance dredging in this part of the channel.

The existing Federal Project, completed in 1954, provides a channel from the natural 10-foot contour to the town landing and two anchorage areas seven feet deep, totaling about 25 acres.

#### Problem

Local officials in the town of Mt. Desert are interested in obtaining maintenance dredging in the channel and anchorage. The town is in the process of hiring a private consultant to assist them with a harbor management plan and to redesign the harbor in the most efficient manner. As part of this overall scheme, the town wishes to expand the existing federal anchorage and deepen the access channel. In its present configuration, the anchorage is extremely congested in the summer. Often, damages occur to pleasure craft crowded into the anchorage when they move around under normal wind conditions. The harbormaster also anticipates a contined growth in the yearly demand for anchorage space by recreational boaters over the next ten years. The current size of the anchorage space is inadequate to accomodate this increased demand.

#### Plan of Improvement

The current plan of improvement is to add an additional 16 acres of anchorage area to the northern and eastern section of the habor. Each anchorage area would be dredged to 6 feet with a 1-foot overdepth.

#### Benefit Analysis

The information which served as the basis of the economic analysis at the preliminary reconaissance level was obtained from the Town Manager of Mt. Desert, and the current and previous harbormasters of Northeast Harbor. Benefits represent the estimated dollar value of damages prevented to recreational vessels, and the additional recreational value of the harbor to current and potential boaters. The beneficiaries of a proposed Federal project would be the current recreational boaters in Northeast Harbor and future boaters who are now on a waiting list for mooring space in the harbor. There are no benefits to commercial fishing. The current interest rate of 8 5/8% was used in this analysis.

There are two categories of benefits to recreational vessels estimated in this analysis. The first is the elimination of vessel damage resulting from congestion in the harbor. The other benefit estimated is the enhanced recreational experience to present and future recreational boaters, that a harbor improvement would bring about. The improvement is expected to provide enough anchorage area to accommodate 30 vessels that are currently on the Harbormaster's waiting list.

#### Damage to Recreational Vessels

The harbormaster estimates that 30 damage incidents occur each year to recreational boats during the summer because of congestion. The average cost of repair is \$900.00\*. A larger anchorage would eliminate 100% of the damage associated with harbor congestion.

#### Calculation:

30 boats X \$ 900 = \$ 27,000.

#### Recreational Benefits

The chief recreational benefits derived from a harbor improvement project in Northeast Harbor would be improved recreational opportunities for current users of the habor and expanded recreational opportunities for 30 recreational boaters (and their passengers) who are now on the Harbormaster's waiting list for mooring space.

The unit day value method was used in this analysis to calculate benefits, as the proposed improvements would serve recreational needs for less than 750,000 annual visits at a cost of less than \$1,000,000.

A common form of damage at this harbor is a scrapped or broken toe rail which extends around the stern. These items cost between \$800. and \$1200. to repair.

The Principles and Guidelines Notebook has established a point system for assigning value to recreational opportunities using five general recreation criteria. These criteria attempt to measure availability aesthetics and efficiencies of operation of a recreational facility both without a project and with a project. Points are then converted to dollar amounts to yield a recreational value per person before and after a project is implemented. Tables I and II, presented below, illustrate the assignment of recreational points and corresponding unit day values to recreational facilities at Northeast Harbor.

Тa	b	1	e	I
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		Without Project	With Project
Α.	Recreational Experience:	1	1
В.	Availability of Opportunity:	1	1
c.	Carrying Capacity:	7	12
D.	Accessibility:	11	15
E.	Environmental Quality:	<u>15</u>	<u>17</u>
Tot	al:	35	46

#### Table II

From Planning Guidance Notebook Table VIII - 3-1 (FY 1987)

#### Conversion of Points to Dollar Values

	10	20	30	40	50	60
1.75	2.05	2.40	2.75	3.20	3.80	4.10

The proposed project would result in an enhanced recreational experience for the 301 vessels currently moored in the harbor, and an additional 30 vessels from an established waiting list provided by the harbormaster. Information provided by the harbormaster aided in developing the following assumptions used to estimate recreational demand and value:

- 1. The recreational season in Northeast Harbor is longer than at other vacation harbors, extending from May through October (150 days apx.). The seasonal residents are rather wealthy and can afford to stay for most of the season.
- 2. The average recreational boat carries between 3 and 5 people and is used 5 days per week on the average. (There are currently 301 vessels moored in the harbor from May October).
- 3. The 30 boats on the waiting are large boats. They average 5 passengers per boat.
- 4. The average number of recreational days in Northeast Harbor was estimated to be 96 days. This is derived by multiplying the 24 weeks (May October) by the 5 days average use per week. A reduction factor of 20% is calculated to account for inclement weather (24 weeks x 5 x .8 = 96).
- 5. The recreational benefits for additional boats would be realized immediately in year 1 of the project.

Calculations for recreational benefits are presented below. Total annual benefits are displayed in Table III.

### Recreational Benefits Calculations:

#### Immediate increase of 30 boats

A. Increase value of unit day to current boaters (with project)

301 boats x 3.5 passengers x 96 days x 3.65\* = 369,146

(without project)

301 boats x 3.5 passengers x 96\*\* days x 2.98\*\*\* = 301,385

Benefit A = 369,146 - 301,385 = 67,761

B. 30 boats x 5 passengers x 96 days x 3.65 = 52,560

Total Annual Benefit = A + B = 676,761 + 52,560 = \$120,321 rounded to 120,300

- \* 3.65 is the unit day value with a project
- \*\* May October: 24 weeks x 5 days per wk. average use x .8 = 96 days (adjusted for inclement weather)
- \*\*\* 2.98 is the unit day value without a project.

#### Table III

#### Annual Benefits - Northeast Harbor

1.	Elimination of Damage to Recreational Vessels	\$ 27,000
2.	Recreation Benefits	\$120,300
	Total Annual Benefits:	\$147,300

#### Table IV

#### Economic Evaluation - Northeast Harbor

Annual	Annual	Benefit-	Net
Benefits	Cost	Cost Ratio	Benefits
\$147,300	\$68,200	2.2	\$79,100

#### ENVIRONMENTAL CONCERNS

A RECONNAISSANCE REPORT

FOR THE

IMPROVEMENT DREDGING

ΑT

NORTHEAST HARBOR

IN

MOUNT DESERT, MAINE

Prepared by: Terrence S. Fleming Marine Ecologist

October 1987

Environmental Resource Section
Impact Analysis Branch
U.S. Army Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02254-9149

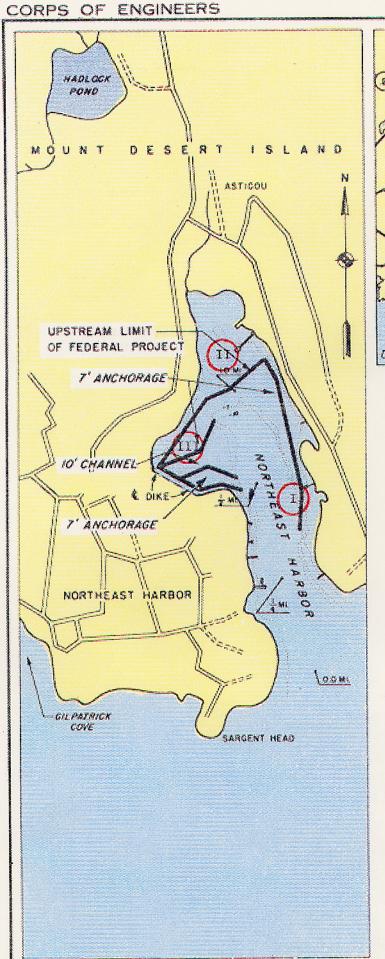
Reconnaissance Report for Northeast Harbor. Maine

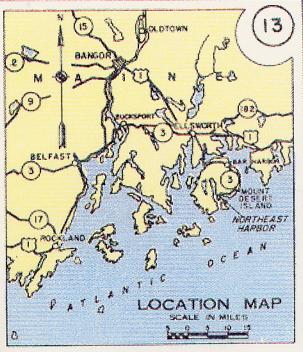
#### A. Environmental Report.

- 1) Project Location. Northeast Harbor is located on the southern side of Mount Desert Island in Northeastern Maine. Northeast Harbor, the most protected harbor on Mt Desert Island, can be characterized as a low velocity tidal channel (U.S. Fish and Wildlife, 1980).
- 2) Project Description. The project under consideration includes increasing the anchorage area of the harbor by the creation of an anchorage in the northern portion of the harbor (area 1 on attached map) and increasing the size of the existing anchorage on the southestern portion of the harbor near Peabody's Flat (area 2). Also under consideration are the deepening of an existing 7' anchorage area to 10' (area 3) and the existing 10' channel (area 4) to 15'.
- 3) Professional observations. The project area was visited 27 August, 1987 by team members Terry Fleming, Chuck Freeman and Mariane Matheny. To evaluate the sediment type and the types of organisms likely to be impacted by the proposed project, benthic samples were taken with a 0.04 m2 Van-Veen grab. The sediments are primarily a muddy ooze, approximately 75% of the bottom is covered with mud (personal communication, Eric Ruth, assistant harbor master). This is consistent with the slow tidal currents characteristic of the harbor. There are rocky outcroppings near the mouth of the harbor on the western shore but this is outside the project area. There is an extensive intertidal mudflat at the northern most end of the harbor which supports a large shellfish population. The locations of the grab samples can be referenced from the attached map. Site I was an area known to the locals as Peabody's flat. The grab at this site brought up mud and eel grass. Benthic animals retained on the 1.0 mm sieve were littorinid snails. II was located at the northern extreme of the project area. The grab at this site brought up a sulfur smelling muddy ooze. No benthic macrofauna were retained on the 1.0 mm sieve. The adjacent tidal flats have a healthy shellfish population. The area near the docks (site III) is characterized by a sandy sub-tidal mussel flat.

Several harbor seals were seen in the area. Harbor seals are protected under the marine mammal protection act. This act requires that a statement be prepared indicating that the work will not result in harassment of marine mammals. Although endangered species coordination was not done at this stage in the project, many of the islands in the Mt Desert area are nesting sites for bald eagles. In addition, the coastal waters of the region are a migratroy path for humpback whales. A section 7 consultation may be required concurrent with the preparation of the environmental assessment.

4) Information Sources.





#### GRAB SAMPLE LOCATIONS

I PEABODY'S FLAT

II NORTHERN FLAT

III DOCK AREA

NAVIGATION IMPROVEMENT STUDY NORTHEAST HARBOR MOUNT DESERT, MAINE SEDIMENT EVALUATION

The following information sources have been used or are available for future use for this study:

- a) Atlantic Coast Ecological Inventory, 1980. U.S. Fish and Wildlife Service.
- An ecological characterization of coastal Maine. 1980.
   U. S. Fish and Wildlife Service.

The following people have been contacted during the development of this report and should be coordinated with as the study progresses:

Mr. Malcom Richards, Maine Dept of Marine Resources Mr. Ronald Joseph, U.S. Fish and Wildlife Service Mr. Doug Beach, National Marine Fisheries Service (endangered species) Mr. Chris Mantzaris, National Marine Fisheries Service (habitat conservation)

#### RECONNAISSANCE REPORT

NORTHEAST HARBOR MOUNT DESERT, MAINE

PERTINENT CORRESPONDENCE

JUNE 1988



#### DEPARTMENT OF THE ARMY

#### NEW ENGLAND DIVISION, CORPS OF ENGINEERS

### 424 TRAPELO ROAD WALTHAM, MASSACHUSETTS 02254-9149

REPLY TO ATTENTION OF

CENEDPL-CN (1105-2-10)

29 June 1988

MEMORANDUM FOR: Commander, USACE (CECW-P), 20 Mass. Avenue, N.W., Washington, D.C. 20314-1000

SUBJECT: Reconnaissance Report, Northeast Harbor, Mount Desert, Maine CWIS # 87500 (2nd Congressional District)

- 1. A Reconnaissance Report for the subject project, prepared under the authority of Section 107 of the 1960 River and Harbor Act, as amended, has been completed. Federal assistance was requested by the Board of Selectmen of the town of Mount Desert.
- 2. Ten copies of the subject report and Fact Sheet are attached. The report recommends no further study, based on the purely recreational benefits involved. The study sponsor has been informed of our findings (copy of letter enclosed).

THOMAS A. RHEN

Colonel, Corps of Engineers

Commanding

Attachment

# CONTINUING AUTHORITIES FACT SHEET NORTHEAST HARBOR MAINE RECONNAISSANCE REPORT

June, 1988 New England Div.

1. Project: Northeast Harbor, Maine CWIS: 87500

Congressional District - 2nd, Rep. Olympia J. Snowe

County: Hancock

2. Authority: Section 107 of the River and Harbor Act of 1960, as amended, for small navigation projects.

3. Location of Study Area: Northeast Harbor is located in the Town of Mount Desert, Maine, on the southern side of Mount Desert Island. Northeast Harbor is the largest of seven villages that make up the town of Mount Desert, and is surrounded by Acadia National Park. The harbor is located 25 miles southeast of Ellsworth, Maine (See Figure 1).

#### 4. Dates of Corps Action:

- a. Reconnaissance Report was initiated on 17 May 1984.
- b. The Reconnaissance Report was completed on 1 June 1988.
- 5. Problems, Needs and Opportunities Identified: Northeast Harbor is one of Maine's finest protected ports, providing summer anchorage for approximately 415 commercial and recreational craft. The harbor is filled to capacity during the summer months primarily with recreational boats. During the winter months, most of the recreational boats leave the harbor. The harbor's sheltered location provides excellent protection against prevailing northeast winds for approximately 47 fishing boats. This fleet is comprised of the year round boats from Northeast Harbor as well as vessels from neighboring Southeast Harbor and Bar Harbor.

The principle problem at Northeast Harbor is anchorage area during the summer months to accommodate the ever increasing recreational boat traffic which seek mooring space. At the present time the harbor is overcrowded, resulting in frequent damage to boats. The opportunity exists to reduce or eliminate these damage costs through provision of additional anchorage space.

6. <u>Alternative Plans Considered</u>: Due to the limited amount of space in Northeast harbor, no alternative plans were considered for anchorage expansion beyond the limits of the existing harbor area.

7. <u>Description of Recommended Plan</u>: The existing Federal project, completed in 1954, provides a channel from the natural 10 foot contour to the town landing and two anchorage areas seven feet deep, totalling about 25 acres.

The considered plan would be to dredge two areas to the north and east of these Federal project limits (See Figure 3). The dredge depth would be to 6 feet below MLW. The plan would add approximately 13.4 acres of anchorage. Three buoys would be used for navigation aids for the new mooring areas. Table 1 presents the cost, benefits and financial data concerning the considered plan.

- 8. <u>Views of Sponsor</u>: The town of Mount Desert is the study/project sponsor. The sponsor requested the study by letter dated 18 April 1984. This and other pertinent correspondence are attached. The considered plan fits the sponsor's needs for expanded anchorage.
- 9. <u>View of Federal, State, and Regional Agencies:</u> As the considered plan was not carried forward beyond this Preliminary Reconnaissance level, no formal coordination was initiated.
- 10. <u>NED Plan</u>: There is no NED Plan. The Considered Plan is not recommended as a basis for further study.
- 11. Status of NEPA Document: N/A
- 12. Significant Effects: N/A
- 13. Implementation Schedule: N/A
- 14. Supplemental Information: N/A
- 15. OCE Review: N/A

### TABLE 1 ECONOMIC AND FINANCIAL DATA RECOMMENDED PLAN

(All costs in thousands of dollars)

Estimated Implementation Costs: (June 1987 price levels)		Economic Data: (8 5/8%, 50 year life)	
(odde 1907 plice leve	, ,	(0 5/0%, 50 year 111c)	
Federal	\$335.0	Annual Charges: \$ 68.2	
Non-Federal	\$335.0	Annual Benefits: \$147.3	
U.S. Coast Guard	\$ 12.0		
TOTAL	\$682.0	BCR: 2.2:1	

Non-Federal Requirements: The local sponsor would be required to comply with the customary standards of the local cooperation agreement which include:

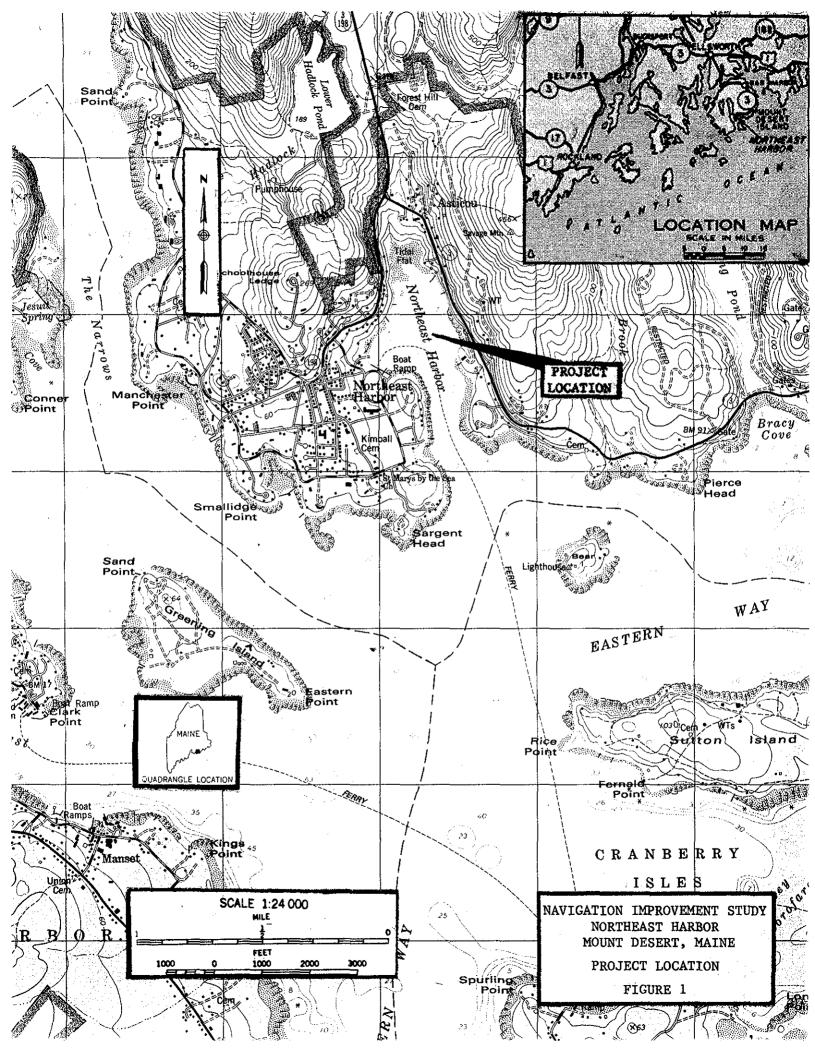
- 1. Provide all lands, easements and rights-of-way necessary for project construction and maintenance,
- 2. Contribute at least 10% of the first cost of construction, to be paid during construction,
- 3. Contribute no more than 10% of the first cost, to be repaid over 30 years, and
- 4. Dredge the berthing/offloading area adjacent to the town pier to a depth commensurate with that of the proposed Federal channel.

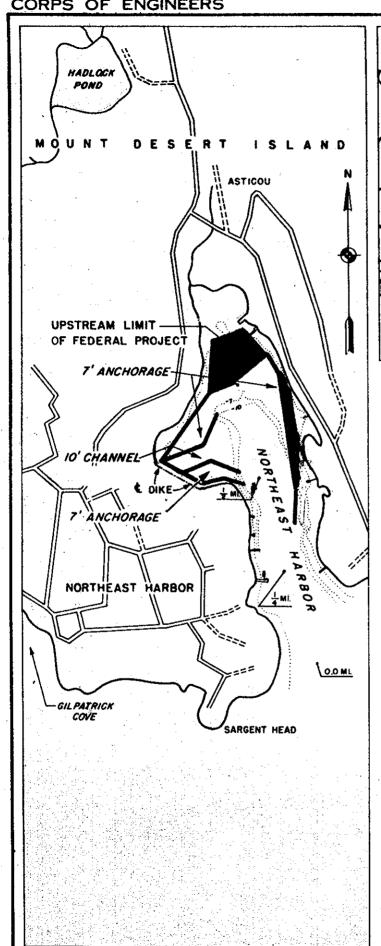
#### Cost Allocation:

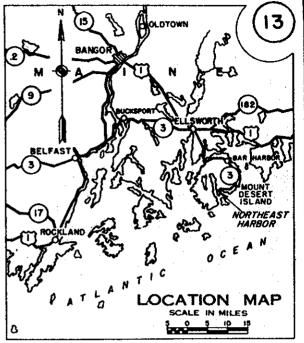
Purpose	Federal	Non-Federal	Avg Ann. Benefits
Rec. Navigation	\$335.0	\$335.0	\$147.3
TOTAL	\$335.0	\$335.0	\$147.3
Allocations to Date:	:		
		Federal	Non-Federal
Reconnaissance		\$ 13.0	\$0.0
Definite Project Study		\$ 0.0	<u>\$0.0</u>
TOTAL		\$ 13.0	\$0.0

#### Remaining Requirements:

No further study recommended.







Increase anchorage area by addition of -6 MLW area as shown

NAVIGATION IMPROVEMENT STUDY NORTHEAST HARBOR MOUNT DESERT, MAINE EVALUATED PLAN OF IMPROVEMENT

FIGURE 3

# a

#### **DEPARTMENT OF THE ARMY**

NEW ENGLAND DIVISION, CORPS OF ENGINEERS 424 TRAPELO ROAD

WALTHAM, MASSACHUSETTS 02254-9149

June 29, 1988

REPLY TO ATTENTION OF

Planning Division Coastal Development Branch

Mr. Durlin Lunt, Chairman Board of Selectmen P.O. Box 248 Northeast Harbor, Maine 04662

Dear Mr. Lunt:

The New England Division has completed its Reconnaissance Study of proposed improvement dredging of Northeast Harbor, Mount Desert, Maine, conducted under the authority of Section 107 of the River and Harbor Act of 1960, as amended. The attached Reconnaissance Report concludes that though economically justifiable, further Federal study of this project is not warranted due to the fact that all benefits would be recreational in nature.

The study evaluated the costs and impacts of improvement dredging to two areas of Northeast Harbor. The project would add approximately 13.4 acres of anchorage needed to meet the present and future demands of a growing number of recreational boaters. Annual benefits of \$147,300 did outweigh the annual cost of \$68,000. However, due to the purely non-commercial benefits involved, further Federal study of this project cannot be justified.

Should you have any questions concerning our report, you may contact me at (617) 647-8220, or the Project Manager, Chris Hatfield, of my staff, at (617) 647-8520.

Sincerely,

Thomas A. Rhen

Colonel, Corps of Engineers

Division Engineer

Copy Furnished:

Mr. William Boddy, Harbormaster Municipal Office, Town of Mt. Desert

Northeast Harbor, Maine 04662



#### **DEPARTMENT OF THE ARMY**

NEW ENGLAND DIVISION, CORPS OF ENGINEERS 424 TRAPELO ROAD WALTHAM, MASSACHUSETTS 02254-9149

REPLY TO ATTENTION OF

May 17,1984

Planning Division Coastal Development Branch

Mr. Durlin Lunt Town of Mount Desert Municipal Office Northeast Harbor, Maine 04662

Dear Mr. Lunt:

I am pleased to inform you that we have initiated a small navigation improvement study for Northeast Harbor, Mount Desert, Maine in response to your letter dated April 18, 1984.

The initial study stage will be an initial appraisal which will determine if further detailed study for providing improvements to the existing Federal navigation project at Northeast Harbor is warranted. The findings of the initial appraisal will be transmitted to you for your review and concurrence.

Should you have any questions, please feel free to contact me at (617) 647-8220. The project manager for this study is Mr. Collis Adams, and he can be reached at (617) 647-8549.

Sincerely,

Carl B. Sciple Colonel, Corps of Engineers Division Engineer



#### DEPARTMENT OF THE ARMY

NEW ENGLAND DIVISION, CORPS OF ENGINEERS **424 TRAPELO ROAD** 

WALTHAM, MASSACHUSETTS 02254-9149

REPLY TO ATTENTION OF

May 17, 1984

MEDPL-C

SUBJECT: Section 107 Initial Appraisal for Mortheast Barbor, Mount Desert, Maine

CDR USACE (DAKN-CWP-E) WASH DC 20314

1. We have recently received a request from a municipality asking for the initiation of a small navigation improvement study pursuant to Section 107 of the 1960 River and Warbor Act. The formal request is as follows:

Mount Desert, Maine - Letter dated 18 April 1984 from the Board of Selectmen of Mount Desert, requesting improvements to navigation conditions in Mortheast Harbor. A copy of the letter is inclosed.

2. A revolving fund account in the amount of \$7,500 has been set up for the completion of the initial appraisal to determine the need for a full scope Section 107 Detailed Project Study. Officials of the affected community are being notified of the establishment of the study fund account and that work will be initiated as soon as capability allows.

Incl As stated CARL B. SCIPLE Colonel, Corps of Engineers Commanding

BOARD OF SELECTMEN
JOHN S. FERNALD, JR., Chm.
MILES K. GRINDLE, Socy.
DURLIN E. LUNT, JR.
TOWN MANAGER
LEONARD H. KYLE
CHEF OF POLICE

TYRONE M. SMITH

PEARL BORDEAUX

REASURER AND COLLECTOR

CARLO A. NINFI

TOWN CLERK

FREDERICK E. BROWN

ADDRESS OFFICIAL COMMUNICATIONS TO NORTHEAST HARBOR

April 18, 1984

James S. Brandmeir Harbormaster P.O. Box 137 Northeast Harbor, Maine 04662 (207) 276-5059

Mr. Carl B. Sciple
Planning Department
Department of the Army
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02254

Dear Mr. Sciple,

The Town of Mount Desert, Maine is interested in expanding our anchorage area in Northeast Harbor, Maine, as our present anchorage is rapidly reaching capacity.

we are specifically requesting that a study be made on the feasibility of expanding Northeast Harbor. Kaine on the outer edges and to the north.

as an added note, operations department is planning to do maintenance in Northeast Harbor sometime in 1985. Ms. Carter Laing is coordinating.

Your cooperation and help in this matter would be greatly appreciated.

Sincerely,

James S. Brandmer Harbor Master Concordant endorsements of the selectmen of the Town

of Mount Desert

7-Durlin Lunt, Chairman

---John Butler, Sec.

Tichard M. Savage, II